

Aluminum Crossed Roller Guide Motorized Stage

Stage Size 40 × 40 mm / 60 × 60 mm / 100 × 100 mm / 100 × 175 mm

TAMM

RoHS

Motorized crossed roller stages offer small footprint, low-profile and high durability.



These linear stages utilize

- anti-creep crossed roller bearings
- a special nut-shape ball screw.
- black anodized aluminum body.

Guide

- ▶ Due to the motor offset, a spacer is required when mounting the stage on a flat surface (MSP-40 [WEB Reference](#) [Catalog Code](#) W6035, [WEB Reference](#) [Catalog Code](#) W6036 or Contact our Sales Division for custom spacers) [Reference](#) D041 –
- ▶ After purchasing two X axis stages, to assemble them into an XY axis stage, assembly adjustment cost and performance inspection cost will be charged separately.
- ▶ Contact our Sales Division for other customization options including alternate motors. Or, use the motorized stage system question sheet. [Reference](#) G123 [WEB Reference](#) [Catalog Code](#) W9500

Specifications

Part Number		CE TAMM40-10C	CE TAMM60-15C	TAMM100-50C	TAMM100-100C	
Opposite Model/Part Number		CE TAMM40-10CR	CE TAMM60-15CR	TAMM100-50CR	TAMM100-100CR	
Mechanical Specifications	Travel [mm]	10	15	50	100	
	Stage Size [mm]	40×40	60×60	100×100	100×175	
	Feed Screw	Ball screw diameter φ4mm, 1mm lead	Ball screw diameter φ6mm, 1mm lead	Ball screw diameter φ8mm, 1mm lead	Ball screw diameter φ8mm, 1mm lead	
	Positioning Slide	Crossed roller guide	Crossed roller guide	Crossed roller guide	Crossed roller guide	
	Stage Material	Aluminum	Aluminum	Aluminum	Aluminum	
	Finish	Black anodized	Black anodized	Black anodized	Black anodized	
	Weight [kg]	0.33	0.48	1.9	2.9	
Accuracy Specifications	Resolution	(Full) [μm/pulse]	2	2	2	2
		(Half) [μm/pulse]	1	1	1	1
	MAX Speed [mm/sec]	10	10	10	10	
	Positioning Accuracy [μm]	6	6	6	10	
	Positional Repeatability [μm]	1	1	1	1	
	Load Capacity [N]	29.4 (3.0kgf)	49 (5.0kgf)	98 (10.0kgf)	98 (10.0kgf)	
	Moment Stiffness[*]/N·cm]	1.5	0.5	0.05	0.03	
	Lost Motion [μm]	1	1	1	1	
	Backlash [μm]	1	1	1	1	
	Parallelism [μm]	30	30	30	30	
	Running Parallelism [μm]	10	10	10	10	
	Pitch [°] / Yaw [°]	25/25	20/20	20/15	20/15	
Sensor	Sensor Part Number	Micro photo sensor: GP1S097HCZ (Sharp Corporation) Limit Sensor, Origin Sensor				
	Limit Sensor	Equipped (NORMAL CLOSE)	Equipped (NORMAL CLOSE)	Equipped (NORMAL CLOSE)	Equipped (NORMAL CLOSE)	
	Origin Sensor	Equipped (NORMAL OPEN)	Equipped (NORMAL OPEN)	Equipped (NORMAL OPEN)	Equipped (NORMAL OPEN)	
	Proximity Origin Sensor	None	None	None	None	

Motor / Sensor Specifications

Motor	Type	5-phase stepping motor 0.75A/phase (Oriental Motor Co., Ltd.)	
	Motor Part Number	PK523HPB-C12 (□28mm)	PK544NBW (□42mm)
	Step Angle	0.72°	
Sensor	Power Voltage	DC5 - 24V±10%	
	Current Consumption	60mA or lower (20mA or lower per sensor)	
	Control Output	NPN open collector output DC30V or lower, 50mA or lower	
	Output Logic	In the case of light shielded ,output transistor OFF (No conduction): Limit sensor In the case of light shielded ,output transistor ON (Conduction): Origin sensor	

Compatible Driver / Controller

Control System	Compatible Driver	SG-5M, SG-5MA, MC-S0514ZU, SG-514MSC, MC-7514PCL	SG-5M, MC-S0514ZU, SG-514MSC, MC-7514PCL
	Compatible Controller	GSC-01, GSC-02, SHOT-702, GIP-101, HSC-103 SHOT-302GS, SHOT-304GS, HIT-M·HIT-S, PGC-04-U	SHOT-702, HSC-103, SHOT-302GS, SHOT-304GS, HIT-M·HIT-S, PGC-04-U

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Options

40 × 40 mm

60 × 60 mm

80 × 80 mm

85 × 85 mm

100 × 100 mm

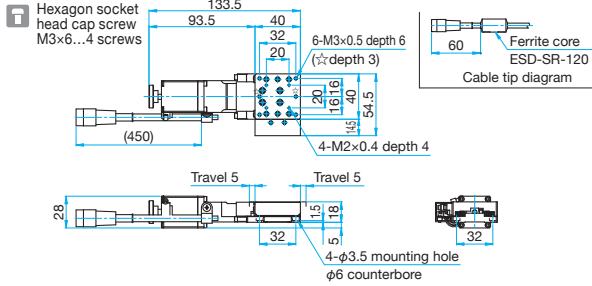
120 × 120 mm

Others

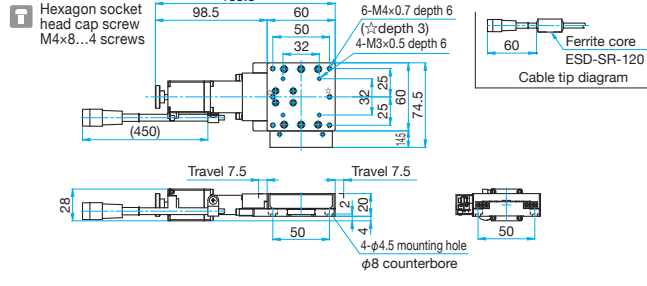


Outline Drawing

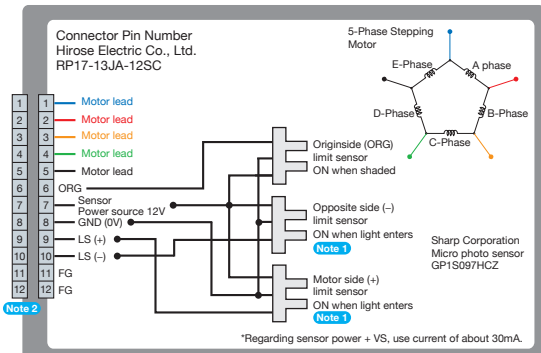
TAMM40-10C



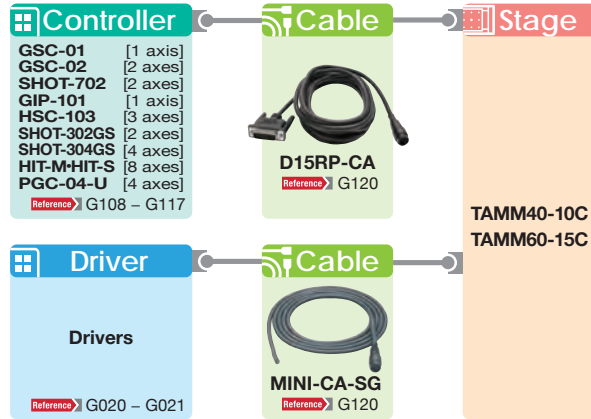
TAMM60-15C



Connection Diagram

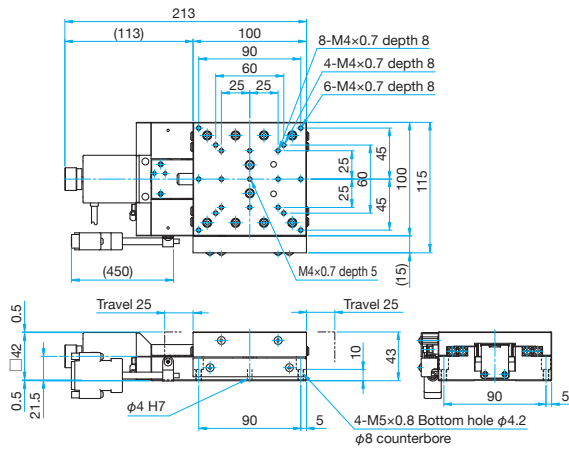


Compatible Controllers / Drivers and Cables



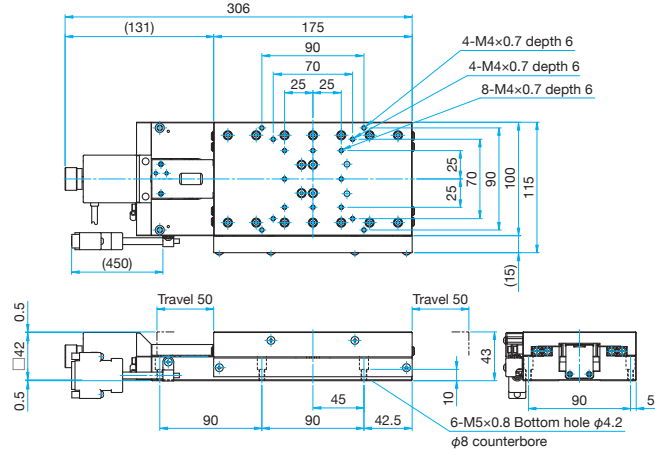
TAMM100-50C

Hexagon socket head cap screw M4×15...4 screws

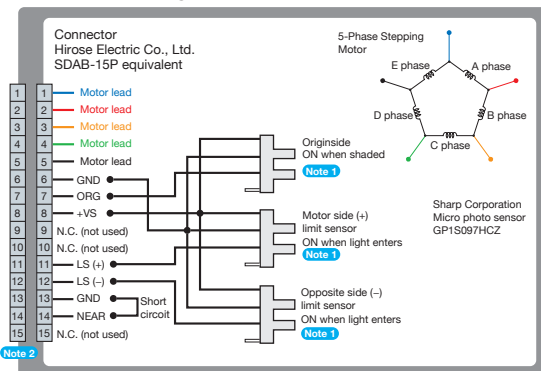


TAMM100-100C

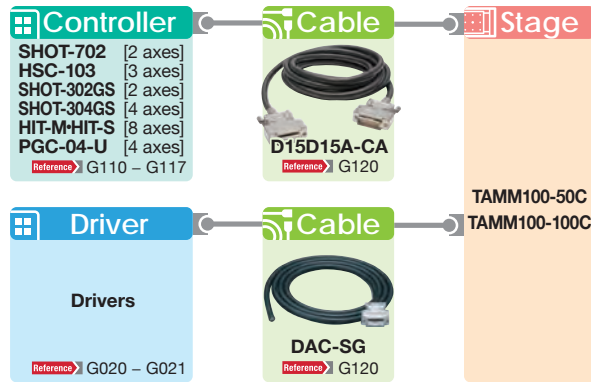
Hexagon socket head cap screw M4×15...6 screws



Connection Diagram



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